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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
10 063,238	04 02 2002	V. Durga Nageswar Rao	201-0043 DP	2859

28395 7590 06 09 2003

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EXAMINER

FEELY, MICHAEL J

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 06/09/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,238

Applicant(s)

RAO, V. DURGA NAGESWAR

Examiner

Michael J Feely

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8-14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of coating parts made from materials having a softening point below about 300°F, does not reasonably provide enablement for a method of coating parts made from materials having a "low" softening point greater than about 300°F. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The specification ~~is~~ specifically teaches a method of coating parts made from materials having a softening point below about 300°F. Claims 8-14 are drawn to a method of coating parts made from materials having a "low" softening point. Typically, the scope of this claim would be interpreted in light of the specification, where "low" would be equated to a range below about 300°F; however, dependent claim 17 further limits the process by reciting, "wherein the article is made of a material that has a softening point below about 300°F". This seems to suggest that the scope of claims 8-14 includes softening points above about 300°F. The specification does not support such a range.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 6, 7, and 13-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 7, 13, 14 recite the limitations "vinyl butyrate resin" and "dicyandimide cross-linking agent" in the composition of claim 1 and the process of claim 8. There is insufficient antecedent basis for these limitations in the claims. Claims 1 and 8 do not provide basis for these components because they are beyond the scope of components (i) through (iv). A vinyl butyrate resin is classified as a thermoplastic, not a thermoset; and there is no mention of a cross-linking agent in the parent claims. Claims 15 and 16 are rejected because they depend on claim 14.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao et al. (US Pat. No. 5,482,637).

Regarding claims 1-5, Rao et al. disclose (1) an anti-friction and anti-wear liquid coating composition (column 4, lines 39-41) comprising: a mixture of (i) solid lubricants comprising boron nitride, graphite, and molybdenum disulfide (column 4, lines 39-51; column 5, lines 22-25), (ii) a thermoset resin system (column 4, lines 39-51), (iii) at least one catalyst for curing the resin system (column 4, lines 39-51), and (iv) a solvent system comprising highly volatile solvents (column 4, lines 39-51); (2) wherein the solid lubricants comprise about 12-35 weight

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percent of the total weight of the coating composition (column 4, lines 52-53) and the solvent system comprises about 35-75 weight percent of the total weight of the composition (column 4, lines 49-53); **(3)** wherein the solvent system has a boiling point below about 150°F (column 5, lines 6-9); **(4)** wherein the solvent consists of solvents selected from the group consisting of methyl ethyl ketone, 2-propoxy ethanol, xylene and diacetone alcohol (column 5, lines 6-9); and **(5)** wherein the resin comprises an epoxy resin (column 4, lines 60-66).

Rao et al. fail to explicitly state that the composition is, "for use with parts made of materials that have softening points below 300°F". However, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In the instant case, the preamble recites an intended use and the structural limitations are able to stand alone; hence, the limitation in the preamble has not been given patentable weight.

Allowable Subject Matter

7. Claims 6-7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claim 8-12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action.

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9. Claims 13-16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first and second paragraphs, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claims 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 6 and 7, Rao et al. teach a coating composition comprising: graphite; MoS₂; BN; epoxy OR a vinyl butyral resin; a tertiary amine catalyst; a dicyandimine cross-linking agent; and methyl ethyl ketone OR diacetone alcohol. The reference fails to teach or suggest a composition having a solvent system comprising all of: diacetone alcohol, methyl ethyl ketone, 2-propoxy ethanol, and xylene. Furthermore, the reference fails to teach or suggest a composition comprising a combination of epoxy and vinyl butyral resin.

Regarding claim 8, Rao et al. fail to teach or suggest a coating process, wherein the claimed composition is applied to parts made of low softening point materials, i.e. having a softening point below about 300°C. The process in Rao et al. is specifically directed towards metallic substrates with higher softening points. Claims 9-16 would be allowable because they depend on claim 8.

Regarding claims 17, Rao et al. fail to teach or suggest an article coated with the composition of claim 1, wherein the article is a material having a softening point below about 300°C. The process in Rao et al. is specifically directed towards metallic substrates with higher softening points. Claims 18-20 would be allowable because they depend on claim 17.

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Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rao et al. (US Pat. No. 5,554,020) teach a similar coating composition and coating method; however, the coating system is an aqueous system, not including volatile solvents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Feely whose telephone number is 703-305-0268. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Michael J. Feely
June 5, 2003



Robert A. Dawson
703-308-2340
703-872-9310